What is claimed is:

1. A bio-liquid crystal polymer, comprising a tissue-derived compound or the derivatives, wherein:

said bio-liquid crystal polymer has a characteristic of liquid crystal under predetermined conditions and is biocompatible.

2. The bio-liquid crystal polymer according to claim 1, wherein said bio-liquid crystal polymer has a solubility to a solvent.

3. The bio-liquid crystal polymer according to claim 1, wherein said predetermined conditions include a temperature of said bio-liquid crystal polymer.

4. A bio-liquid crystal polymer, comprising polyhydroxycinnamic acid, wherein:

said bio-liquid crystal polymer is biocompatible.

5. A bio-liquid crystal polymer, comprising a copolymer which is synthesized by polymerizing two kinds of aromatic series natural products which have two or more reactive functional groups and are capable of polymerizing.

6. A bio-liquid crystal polymer, comprising a copolymer which is produced by polymerizing a) any one of aromatic series natural products which have two or more reactive functional groups and are capable of polymerizing and b) one or more selected from nucleic acids, amino acids, saccharides, fatty

acids, terpenes, porphyrins, flavonoids, steroids and alkaloids which have two or more reactive functional groups and are capable of polymerizing.

7. A bio-liquid crystal polymer, comprising a copolymer which is produced by polymerizing two or more selected from nucleic acids, amino acids, saccharides, fatty acids, terpenes, porphyrins, flavonoids, steroids and alkaloids which have two or more reactive functional groups and are capable of polymerizing and have a rigid structural unit such as alicyclic, double bond and triple bond.

8. A bio-liquid crystal polymer, comprising a homopolymer which is produced by polymerizing an aromatic series natural product which has two or more reactive functional groups and are capable of polymerizing.

9. A bio-liquid crystal polymer, comprising a homopolymer which is produced by polymerizing one selected from nucleic acids, amino acids, saccharides, fatty acids, terpenes, porphyrins, flavonoids, steroids and alkaloids which have two or more reactive functional groups and are capable of polymerizing.

10. A bio-liquid crystal polymer, comprising a homopolymer which is produced by polymerizing one selected from nucleic acids, amino acids, saccharides, fatty acids, terpenes, porphyrins, flavonoids, steroids and alkaloids which have two or more reactive functional groups and are capable of

polymerizing and have a rigid structural unit such as alicyclic, double bond and triple bond.

11. A bio-liquid crystal polymer, comprising a copolymer of hydroxycinnamic acid and lithocholic acid.

12. The bio-liquid crystal polymer according to claim 11, wherein:

said bio-liquid crystal polymer includes lithocholic acid of 0 to 70 mol%.

13. The bio-liquid crystal polymer according to claim 11, wherein:

said bio-liquid crystal polymer includes lithocholic acid of 0 to 30 mol%.

14. A shaped material for biocompatible parts, comprising a copolymer of hydroxycinnamic acid and lithocholic acid or polyhydroxycinnamic acid.

15. A shaped material for parts requiring mechanical strength and thermal resistance, comprising a copolymer of hydroxycinnamic acid and lithocholic acid or polyhydroxycinnamic acid.

16. A shaped material for fibers, comprising a copolymer of hydroxycinnamic acid and lithocholic acid or polyhydroxycinnamic acid.

17. A shaped material for optical parts having an optical characteristic to be changed by light irradiation or heating, comprising a copolymer of hydroxycinnamic acid and lithocholic acid or polyhydroxycinnamic acid.